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TAX EVASION AND AVOIDANCE: A CRUCIAL BUT NEGLECTED ASPECT OF TAXATION

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PREFACE

1. Development problem arises because the behaviour pattern of firms, households and institutions (including the price system) in the LDCs are ill-adapted to the requirements of essential structural change. These patterns, thus, have to be modified. Tax structure is one of the important policy instruments for the purpose. (The other is the financial structure, which in addition can be an agent for change also - as it was historically in some countries.) Hence, the basic objective of a sound tax system should be to induce behaviour patterns consistent with such creation, reallocation and use of resources as are relevant for structural change. Mobilisation of resources for the public sector can only be a subsidiary objective.

2. One has therefore to look at tax technology from this point of view. Innovations in tax technology seem to be as much important as those in production technology; and in fact such innovations may be easier in the field of Finance than in the field of production technology. One may have to think of taxing consumption expenditures rather than incomes, of taxing functionless wealth rather than functional accumulation of assets. Tax system ought to provide a choice to taxpayers: choice between functional behaviour patterns and non-functional ones.

3. A tax system is obviously badly designed if it encourages functionless tax avoidance and tax evasion; such a system actually encourages non-functional, or dysfunctional, behaviour and thus causes misdirection and waste of resources as well as social inequity. A study of tax avoidance and tax evasion thus can be a good starting point for the analysis of a tax system. In spite of the basic significance of such a study, it is surprising that not much work has been done in this field in the developing countries. This paper seeks to review the literature on this subject and pinpoints the need for in-depth studies of tax avoidance and tax evasion for the purpose of evolving a sound tax system.

V.V. Bhatt

Tax Evasion and Avoidance: A Crucial But Neglected Aspect of Taxation

In spite of the critical significance of tax evasion and avoidance to studies for the design of an efficient tax system, it is somewhat strange to find the neglect of this aspect of taxation in the growing literature on taxation. For the developing countries particularly, such a study is essential; it would provide a broad framework for their tax policies.

The problem of definition is dealt with in Section I. The significance of a study of the avoidance-evasion aspects of taxation for designing an efficient tax system is discussed in Section II, while the literature on the subject is reviewed in Section III. Select bibliography on the subject is appended at the end.

I. Definitions

Two criteria have been used in defining tax evasion and tax avoidance. One criterion is in terms of their effect on revenue productivity; and the other is the criterion of legality. Use of the first criterion puts tax evasion and tax avoidance on the same footing because both result in reduction of revenue productivity of taxes. In terms of the legality criterion, however, the two are opposite of each other. Tax avoidance is legal while tax evasion is illegal.

Tax evasion and tax avoidance embrace a wide variety of practices adopted by tax payers. The common feature of all such practices is that they result in a loss of tax revenue to the government. Loss of tax revenue from tax evasion is the result of the use of varied forms of illegal means comprising concealment or underreporting of income, overstatement of business expenses by addition of completely fictitious items of expenditure or by inflating the amounts actually spent, and claiming of exemptions and deductions, not allowed under the tax law, by misrepresentation of their true character. On the other hand, loss of tax revenue from tax avoidance results from the use of "tax shelters", "tax loopholes", "tax havens", or "tax gimmicks".[1/]

Seligman discussed tax evasion in a wider context of shifting of incidence of taxation but his definition of tax evasion is also in terms of loss of tax revenue to the government. He distinguished between "legitimate evasion" and "illegitimate evasion". The former comes close to tax avoidancce; and the latter is nearly synonymous with tax evasion. He described tax evasion as a "method of escape from taxation". In this respect, he regarded it as similar to the other three "forms of escape from taxation" namely, "shifting, capitalization, and transformation", discussed by him. The fundamental distinguishing characteristic of tax evasion is that it results in loss of tax revenue to the government. Seligman explained, "Whether the tax be shifted,

1/ Jerome R. Hellerstein (1963), especially Chapter 5.

capitalized, or transformed, it has always been paid by someone. ... In the case of evasion, however, not only does the taxpayer escape the tax, but the government loses its revenue". 1/ (Italics added).

In terms of the criterion of legality, tax evasion and tax avoidance are sharply distinguished from each other. Tax avoidance is legal, while tax evasion is illegal. By implication, it is supposed to follow that tax avoidance is a perfectly legitimate strategy to reduce one's tax liability but tax evasion is a criminal activity the sole purpose of which is to escape taxation by cheating the government. Thus, tax evasion is condemned like any fraud or a criminal activity but tax avoidance is regarded as free from any social stigma. 2/ We shall argue, in the following paragraphs, that the step from legality to legitimacy is a non sequitur. All that legality implies is that an individual taxpayer cannot be prosecuted for using various tax avoidance practices with a view to reduce his tax liability because, by definition, tax avoidance practices do not violate any tax law. But it does not mean that tax avoidance practices are also legitimate in the sense that such practices do not conflict with social interest. The best discussion of this point is found in the Section on the "Problems of Tax Avoidance" in the Report of the Canadian Royal Commission on Taxation. 3/ The definition of "tax avoidance" adopted by the Canadian Royal Commission on Taxation is perfectly in accord with its meaning in common parlance. It stressed that motivation was the essential element of tax avoidance which distinguished it from other ways in which an individual taxpayer could reduce his tax liability. It said that "motive would seem to be an essential elementof tax avoidance". It explained, "A person who adopts one of several possible courses because that one will save him the most tax must be distinguished from the taxpayer who adopts the same course for business or personal reasons". (Italics added). Thus, there are several practices which may be perfectly legitimate actions "for business or personal reasons" and saving in tax may be purely incidental benefit in tax reduction. The same practices may, however, be employed purely for purposes of reducing tax liability. In the former case, such actions would not be described as "tax avoidance" in common parlance. In the latter case, the very same actions would be considered as "tax avoidance" by common man in his day-to-day language. In terms of this meaning, "tax avoidance" is socially undesirable by definition. 4/

Besides, tax avoidance, as defined in terms of motivation, violates the spirit of law although it conforms to the letter of the law. This is made possible by the general attitude of courts towards interpretation of

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1/ E.R.A. Seligman. Reprinted in Richard A. Musgrave and Carl S. Shoup, eds., (1959), pp. 207-208.

2/ For example, Richard M. Bird deplores the failure to draw a distinction between "illegal tax evasion" and "perfectly legal tax avoidance". See Bird (1970), p. 267, No. 15.

3/ Canadian Royal Commission on Taxation (1966), Vol. 3, Appendix A, pp. 537-578.

4/ All quotations contained in this para. are from ibid, p. 538.

tax laws. The Report of the Canadian Royal Commission on Taxation once again provides a convenient reference on this point. The Commission observed that "it is a well-established rule of English and Canadian income tax law that taxing statutes are to be strictly construed and effect given only to the letter of the law, according to the plain, ordinary meaning of the language used, regardless of its spirit or the supposed intention of Parliament".1/ (Italics added).

Furthermore, tax avoidance is often legal only because its illegality cannot be proved. Several instances can be cited to illustrate this point. The most flagrant example is conversion of ordinary income into capital gains with a view to reducing one's tax liability. Another equally striking example is inclusion of personal expenses into business expense accounts. Here, we are not referring to outright cheating involved in padding business expense accounts by fictitious entries or inflated charges. The reference is to such cases where "business expenses" are deliberately incurred to satisfy personal wants.2/ There is, however, no feasible way of separating the business purpose from personal satisfaction. Difficulties arise from the inherent complexity of our modern society. Cohen, who dealt with such complexities as Assistant Secretary for Tax Policy at the U.S. Treasury, listed a few examples of expense items which illustrate the point made here. He was addressing a seminar on tax simplification at the sixty-seventh annual conference on taxation sponsored by the National Tax Association and the Tax Institute of America, held in 1973.3/

The above discussion highlights the fact that the application of legality criterion in distinguishing between tax evasion and tax avoidance can create a misleading impression. Tax avoidance may be regarded as socially justified but that is a wrong impression. Tax avoidance is legal but that is either because of weaknesses of the wording of tax laws, or because of ingenuity of the tax lawyers to pass on something as legal although it clearly violates the spirit of the law and is clearly unintended by the legislators. The prevalence of tax avoidance is almost as harmful to society as is the prevalence of tax evasion. The subject deserves a careful study.

However, the distinction drawn between tax evasion and tax avoidance in terms of the legality criterion serves a useful purpose for policy

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1/ Ibid, p. 543.

2/ We are also not referring to personal pleasure derived incidentally from a business trip. One may enjoy sightseeing or meeting friends and relatives while on a business trip. But so long as the trip is necessary for business, it cannot be described as "tax avoidance". Owner of a business, or a senior official of a company who has the authority to decide, can arrange a business trip to save on a personal trip which he may have otherwise undertaken for personal pleasure or for family reasons, e.g., to visit an ailing father or to attend a sister's marriage.

3/ Edward S. Cohen (1973), pp. 312-313.

formulation. This criterion helps to identify corrective actions needed if loss in tax revenue is considered undesirable. If the loss is resulting from use (or misuse) of provisions of tax laws, the remedy lies in improvements in tax laws. Such improvements may take the form of deletion of such provisions or rewording of such provisions so as to minimize the loss in tax revenue resulting from their use (or misuse) by taxpayers. On the other hand, if the undesirable loss in tax revenues is the result of illegal tax evasion, the policy implication is that measures are needed to improve effectiveness of tax administration. Such measures may consist of punitive measures like fines, imprisonment, etc.,; or, they may comprise persuasive measures like public education, and better detection through strengthening of tax administration with regard to both its personnel and procedures.

II. Significance of Avoidance-Evasion Studies

The study of tax evasion and tax avoidance is needed both because it is extremely important and because little attention has been paid to the subject by professional economists.

The importance of the subject is very easy to explain. Tax policy is an important tool in the economic policy kit. It is a mere truism to say that success of the objectives of tax policy depends on its effective implementation.1/ This underscores the crucial importance of a study of effectiveness of administration of tax laws in different countries.

Tax evasion and tax avoidance are the problems of effective administration of tax laws. Goals of tax policy will be defeated to the extent taxes are evaded or avoided. In his recent study of taxation based on the Colombian experience, Bird observed, "In the hands of an incompetent administration, good tax policy and bad tax policy may end up looking remarkably alike...it is much more difficult to administer a tax policy effectively than it is to devise the policy in the first place".2/ Equally emphatic was the recent Colombian Commission on Tax Reform in underlining the importance of efficient administration. It said, "Taxes, no matter how well-meaning the

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1/ This statement is not pecular to tax policy. It is equally applicable to monetary policy, fiscal policy, price policy, foreign trade policy, incomes policy, or any other type of economic policy. In fact, success of planned economic development depends on affective economic administration as much as, if not more than, on right mix of policies. It can be asserted with confidence that unsatisfactory pace of economic development in most of the developing countries can be ascribed to inefficient implementation to a much greater extent than to any deficiencies in goals and policies embodied in the economic plans. Staggering shortfalls in accepted targets of production and striking failures to implement accepted policies constitute clear evidence in support of this assertion. Economists have been slow to realize this but the crucial importance of efficient economic administration in determining the speed of economic development has been widely recognized in recent years.

2/ Richard M. Bird (1970), p. 200.

statutes enacting them, are no better than the quality of their administration".1/

Importance of effective tax administration for the achievement of fundamental objectives of tax policy has been generally realized by the professional economists. Nevertheless, its relevance to designing a suitable tax structure is still not sufficiently recognized.2/

Prevalence of tax evasion and avoidance, facilitated by ineffective (and corrupt) tax administration and legal deficiencies of tax statutes, results in major social, economic and political consequences. Substantial loss of tax revenue without commensurate gain in socioeconomic objectives has been discussed at length. Interpersonal inequity is introduced into the tax system since opportunities of gain from tax avoidance and evasion are not equally (or equitably) available to taxpayers at different levels of income and wealth. These questions have become increasingly urgent in recent years. Maximum empirical work has been done in the U.S.A. on these aspects of taxation, as is indicated in the following section devoted to a review of the literature. The question of tax avoidance by using various "tax loopholes", "tax shelters", "tax havens", or "tax gimmicks", has become a major political issue in most countries, notably in the U.S.A. The President-elect described the U.S. income tax system as a "disgrace to the human nature".3/ The problem has been considered so serious that several public men and academicians have expressed the apprehension that increasing pervasiveness of tax avoidance and evasion is threatening to undermine public faith in the fairness of the tax system even in the U.S.A. One of the most respected newspaper columnists in the U.S.A. titled his article on the subject as "The New Tax Rebellion".4/ The vigorous public debate on the subject underlines the seriousness of the problem even in the U.S.A. If anything, the problem is even more serious in other developed countries. Insofar as developing countries are concerned, tax avoidance and evasion have reached gigantic proportions. There can be no dispute about the importance and urgency of a scientific investigation into the dimensions of the problem of tax evasion and tax avoidance, especially in developing countries.

1/ Richard A. Musgrave and Malcolm Gillis, eds., (1971), p. 14, para. 1.31.

2/ For example, see Milton C. Taylor (1967). He laments that "most specialists in public finance tend to ignore the importance of tax administration". Reprinted in Richard M. Bird and Oliver Oldmand, eds., (1975), p. 532.

3/ Quoted by Senator Edward M. Kennedy in his article in the daily newspaper The Washington Post, dated August 2, 1976, p. A19.

4/ The Washington Post, dated July 18, 1976, p. C7. Several articles appeared on this subject in this daily newspaper (and in others) during the months of July-October, 1976, when the subject of tax reform in the U.S.A. was being examined by the U.S. Senate Finance Committee.

Second major argument for an empirical study of tax evasion and avoidance stems from the fact that the subject has been generally neglected by professional economists. There is, however, a common tendency to make assertions about the relative merits and demerits of different types of taxes without any empirical basis for asserting administrative superiority of one type of tax over another type of tax. Very often, strong views are expressed by tax experts merely on the basis of their impressions. What is even more serious is that foreign tax experts give categorical suggestions to developing countries in the field of taxation merely on the basis of such impressions.

It is commonly agreed that personal income tax (or expenditure tax) and personal net wealth tax are superior to commodity taxes on economic grounds, especially equity, but it is argued that indirect taxes are superior on administrative grounds. Goode was among the earliest proponents of this view. He said, "Most underdeveloped countries are not ready for major reliance on income taxes. Under existing circumstances, these taxes may lack the distinctive advantages that we usually associate with them...Greatly improved administration and compliance, however, are essential in most instances to prepare the way for the larger role that income taxes may appropriately fill at a later stage of development".[1/] In contrast to this, Goode easily condoned accepted economic inferiority of "consumption taxes". He observed, "They (consumption taxes) raise the familiar issues of equity and possible unintended distortion of production patterns...But government is a necessity and must be supported. Hardly any underdeveloped country is in a position to forego substantial consumption taxes".[2/] This view was expressed much later by Shirley with much more vigor but much less cogently than was done by Goode. The former asserted blandly that income taxes were advocated merely on political considerations of prestige because lesser developed nations have "an ardent desire to be considered a modern, progressive nation with political and economic autonomy...progressive income taxation is desired *simply because* it is regarded as one of the symbols of a modern government".[3/] (Italics added). In his characteristic categorical style, Shirley concluded, "The burden of financing the usual functions of government plus the burden of financing a substantial part of the nation's industrialization *must rest on indirect taxes*...extensive reliance on income taxes or other ability to pay measures is a social and economic luxury which the lesser developed nations of the world cannot yet afford".[4/] (Italics added). Most recently,

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1/ Richard Goode (1951). Reprinted in Richard M. Bird and Oliver Oldman, eds., (1967), p. 126.

2 Ibid, p. 129.

3/ David E. Shirley (1959), p. 265.

4/ Ibid, p. 269.

the same view was reiterated by Goode. He observed, "Where income tax evasion is more widespread than in the United States or where administrative capacity is limited, simplicity and enforceability may be overriding advantages of indirect taxation. Most of the underdeveloped countries cannot now successfully apply the income tax on a wide scale...Indirect taxes are better suited to the environment (prevailing in the underdeveloped countries)".1/ (Italics added). The impression that indirect taxes are superior to direct taxes on grounds of "simplicity and enforceability" is widely held. Groves questioned the factual validity of this general belief. He rightly pointed out that there was no empirical evidence to support this conviction. He cited the study of sales taxes in Canada done by Due in 1953, and said, "John F. Due in his study of sales taxes in Canada expresses the opinion that the problem (of enforceability) is not a critical one".2/ Until recently no quantitative study of sales taxation in the U.S.A. had been done. Once again John F. Due has made a pioneering study of sales tax administration in different States in the U.S.A. His conclusion from the American study is the same as that from his earlier Canadian study cited above. He listed the limitations of the data used by him like a meticulous scholar (that he is) and concluded: "Comparison of the data from the various sources does suggest that no significant overall evasion of sales taxes is occuring, at least on instate sales; the overall effectiveness of administration is obviously high".3/

The pertinent point is that statements about relative superiority of indirect taxes over direct taxes on the grounds of administrative effectiveness are far too frequently made and generally accepted although there is no empirical basis for such assertions. Groves cited a U.S. federal government official who gave an interesting explanation of the uncritical acceptance of the empirically unsupported view. He was quoted as saying, "If you pick the simple parts of sales tax administration and compare them against the difficult parts of income tax administration, as many people seem anxious to do, it is easy to reach a conclusion that one is easier of administration than the other".4/

The principal findings that emerge from the illustrations and quotations cited above are: (1) The subject of tax avoidance and evasion is an important area of research; (2) Tax experts among economists have tended to ignore considerations of administrative effectiveness in theorising about tax system as a whole as well as about tax structure; and (3) Impressionistic views are widely held by economists about the relative superiority of different

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1/ Richard Goode (1976), p. 34.

2/ Harold M. Groves (1959), p. 37, Footnote 2.

3/ John F. Due (1974), p. 218.

4/ Harold M. Groves (1959), p. 38, Footnote 2.

types of taxes on grounds of administrative effectiveness without any empirical evidence supporting such views. All these three findings serve to underline the need for a detailed study of tax evasion and avoidance as a quantitative measure of the degree of effectiveness of the tax system as a whole and of different taxes in various countries, particularly in developing countries.

III. Review of Literature

The existing literature on tax evasion and avoidance is meager. Economic theorists have generally evaded (or avoided?) the subject. For example, three of the leading textbooks on public finance contain no systematic analysis of the subject. Musgrave ignored the subject altogether. In fact, we could not find the words "tax avoidance" and "tax evasion" in the index to his book.[1/] Writing ten years later, Shoup devoted one chapter to "Tax Administration" in his textbook. However, the chapter occupied less than twelve pages out of a total of six hundred and sixty pages; and tax evasion and avoidance, as such, were allocated less than half the chapter.[2/] In the latest edition of the long standing textbook, Due and Friedlaender mentioned administrative effectiveness as a criterion in discussing every type of tax but provided no unified and systematic discussion of the problem of tax evasion and avoidance in general.[3/] The three textbooks, cited above, provide a fair illustration of the benign neglect of the subject of tax evasion and avoidance by economists. The neglectis not because the subject is relatively unimportant but because the subject does not lend itself to model building due to paucity of available data and special difficulties of collecting figures of income, wealth, sales, and production, relating to such illegal activities as evasion of income tax, wealth tax, sales tax and excise tax, respectively.[4/]

The subject of tax evasion and avoidance did not attract the attention of professional economists. It has, however, formed a subject of lively controversy in public media. Tax reform is a favorite theme in the discussions of public policy issues in every country. Such words as

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1/ Richard A. Musgrave (1959).

2/ Carl S. Shoup (1969), Chapter 17, pp. 427-438.

3/ John F. Due and Ann F. Friedlaender (1973).

4/ Taylor observed, "Scholars in public finance, too, appear to be more concerned with abstract model building and issues of fiscal policy than they are with a rather mundane problem that may well fall more within the sphere of public administration. At any rate, for a number of reasons, there is much about the anatomy of tax evasion that is not known even in developed countries". Milton C. Taylor (1967). Excerpts reprinted in Richard M. Bird and Oliver Oldman, eds., (1975), p. 529.

"tax loopholes", "tax shelters", and "tax havens" are a part of a common man's vocabulary.

We cannot review the public debate in the daily newspapers and other popular periodicals in different countries. We should, however, briefly mention the academic writings which refer to the subject of tax evasion and avoidance in order to point out the limitations of income distribution studies based on published income tax statistics and national accounts statistics. Several writers have raised this issue. Probably the best among them is Titmuss. He attempted a critical evaluation of the income distribution studies made in the United Kingdom.1/ He was not concerned with the estimation of tax evasion and avoidance as such. His concern was with pointing out that neglect of the phenomena of tax evasion and tax avoidance raised a serious question regarding the validity and interpretation of results of the conventional income distribution studies. In the process of making his point, he highlighted several ways of evading and avoiding taxation; and, in some cases, he estimated the magnitudes involved. Several other writers have attempted a similar task with regard to income distribution studies relating to the U.S.A. Their work is of uneven quality but all of them provide useful descriptions, and sometimes magnitudes of tax revenue lost, of different ways adopted by taxpayers to escape from tax liabilities.2/ The argument of the critics of "the income revolution thesis" on the grounds that the basis of the thesis is weakened by the neglect of tax evasion and avoidance is best summarized by Bronfenbrenner in the following words: "The lower personal income share of upper income groups reflects, say the critics, little more than tax avoidance and evasion. They point to lower pay-out rates of corporate dividends (avoiding personal income taxes for wealthy stockholders), the so-called 'expense-account way of life', the spreading of income over time in deferred compensation and executive retirement plans, the conversion of personal income into capital gains (which need never be realized) by stock-purchase options for executives, and outright evasion through under-reporting of property income".3/

The existing literature on tax evasion and avoidance can be classified into two types:

(a) Theoretical models explaining the behavior of tax evaders in terms of economic variables, and

(b) Quantitative studies of the extent of tax evasion and tax avoidance prevalent in different countries.

We shall review the existing literature briefly under these two headings in the following two subsections:

1/ Richard M. Titmuss (1962).

2/ For example, see Herman P. Miller (1971), especially pp. 163-165; Philip Stern (1964, 1973); Jerome R. Hellerstein (1963); and Gabriel Kolko (1962). Having practised as a tax lawyer, Hellerstein gives the most vivid description of "tax loopholes" and 'tax gimmicks'.

3/ Martin Bronfenbrenner (1971), p. 69.

A. Theoretical Models

Substantial work has been done in recent years on the economics of crime and punishment. One of the pioneers in this field was Gary Becker. His lead has been followed by others in the U.S.A.[1/] Similar work has been done in the United Kingdom.[2/] In contrast, analysis of economic offences has not attracted the attention of economists. It is paradoxical because economic offences, like tax evasion, are even more strongly motivated by purely economic considerations than social crimes like rape, murder, etc. The paradox is resolved by difficulties of obtaining data required for statistical analysis of economic crimes like tax evasion, violation of price controls, etc.[3/]

It is only during the last four or five years that some attempts have been made at building theoretical economic models purporting to explain behavior of tax evaders in terms of economic variables. In fact, there are only two published models. One is by Srinivasan;[4/] and the other is by Allingham and Sandmo.[5/] Both have been published as journal articles, and in the same journal, namely the Journal of Public Economics. The approach is similar although the authors developed their respective models independently of each other. Their models supplement each other.

In their model of individual tax evader's behavior, Allingham and Sandmo adopted the standard procedure of studying the problem in the context of utility maximization under conditions of uncertainty. It is assumed "that the taxpayer's behaviour conforms to the Von Neumann-Morgenstern axioms for behaviour under uncertainty". As an individual taxpayer's "cardinal utility function has income as its only argument", he is in effect, regarded as maximizing his expected income.[6/] It is further assumed that Arrow-Pratt measure of absolute risk aversion decreases with income. The

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1/ For examples of analysis of crime in economic terms in the U.S.A., see Gary S. Becker and William M. Landes, eds., (1974).

2/ An example of the use of econometric tools in an analysis of crime in the United Kingdom is a recent article in the Journal of Public Economics by R. A. Carr-Hill and N. H. Stern (1973).

3/ For economic analysis of smuggling and other illegal activities relating to foreign trade, see Jagdish N. Bhagwati, ed., (1974).

4/ T. N. Srinivasan (1973).

5/ M. G. Allingham and A. Sandmo, (1972).

6/ On this point, there is no substantive difference between the approach of Allingham and Sandmo on the one hand, and that of Balbir Singh on the other, despite the latter's observation that the former "had adopted a utility-maximization approach and it does provide more insight into the problem, but for simplicity's sake, here the income-maximization approach has been followed". See Balbir Singh (1973), p. 259 footnote.

model is made even simpler by limiting the analysis to the case of proportional taxation. The penalty imposed, if evasion is detected, is proportional to the absolute amount of concealed income.

It is shown that in the assumed framework, one cannot say whether the proportion of reported income to actual income will be positively correlated, uncorrelated, or negatively correlated with actual income. The result depends on the nature of relationship between the relative risk aversion and the actual income. The relationship between the reported income and tax rate also depends on the nature of relationship between the absolute risk aversion and the actual income. But on the assumption that the absolute risk aversion is a decreasing function of actual income, it can be definitely stated that rate of tax and reported income will be positively correlated.

Two results have been demonstrated to hold without qualification: Firstly, the penalty rate and the fraction of actual income declared will be positively correlated. Secondly, the same positive correlation holds between the probability of being detected and the fraction of the actual income being reported. The results established are quite simple. The rest of the article which is devoted to the "dynamic case" contains interesting, albeit, equally obvious observations.

The mathematical model built by Srinivasan is basically similar to the one by Allingham and Sandmo discussed above. Its results in terms of policy implications are equally meager. Only a brief discussion of this model is called for.

Srinivasan also started off with the standard assumption of economic theory that the individual taxpayer's objective is "to maximize his expected income after taxes and penalties". His decision variable is to choose "the proportion by which income is understated". This decision is influenced by the two fundamental features of a tax system: (i) probability of his concealment of income being detected which would be determined by the effectiveness of tax administration, and (ii) the penalty imposed if the concealment of income is detected. The penalty is proportional to the absolute amount of concealed income. In order to simplify the analysis, other forms of penalty, e.g., a jail term, are ruled out. The system of penalty assumed is exactly the same as was assumed by Allingham and Sandmo in their model.

The major differences between the model constructed by Srinivasan and the one expounded by Allingham and Sandmo are two: (i) Srinivasan assumed neutral risk aversion with regard to the level of actual income, while Allingham and Sandmo had assumed absolute risk aversion to be a decreasing function of actual income and, (ii) Srinivasan introduces progressive system of taxation, while Allingham and Sandmo had made a simplifying assumption that the system of taxation is proportional.

Srinivasan demonstrated three results which are stated below in his own words:

(1) Ceteris paribus, the optimal proportion by which income is understated decreases as the probability of detection increases;

(2) Given a progressive tax function, and a probability of detection independent of income, the richer a person, the larger is the optimal proportion by which he will understate his income; and

(3) If the marginal rate of tax is constant and the probability of detection is an increasing function of income, the optimal proportion of understatement of income decreases as income increases.

The three results stated above are hardly anything more than commonsense. The rest of Srinivasan's paper is devoted to working out implications of different factors on "expected revenue and penalties accruing to the government under a given tax function". He has also discussed the "allocation of resources for detection of income understatement". Again, the usefulness of the results for formulation of policy is severely limited.

The two models discussed above have attracted considerable attention. Two comments appeared in the July 1973 issue of the Journal of Public Economics. Kolm made a detailed comment on the Allingham and Sandmo model.[1] He introduced public goods into the utility function of an individual, and he pointed out that supply of public goods is a function of the total tax yield, including revenue and penalties collected minus the costs incurred on detection of concealed income as well as the usual cost of collection. Thus, tax yield is expressly introduced into the utility function of an individual. Kolm also introduced the concern of "the collector, and his boss the Minister of Finance" which is "the total yield of the tax". Then he explored theoretical implications of changes in tax rate, probability of detection and penalty rate. In sum, he has elaborated Allingham-Sandmo model in some respects.

Balbir Singh looked at observed changes in income distribution in India during the sixties compared to the fiscal year 1953-54.[2] He attributed the observed decline in the Gini coefficient of concentration up to 1964-65 and its rise thereafter in case of non-salaried incomes to changes in the extent of tax evasion. He argued that tightening of tax administration (and resulting increase in the probability of detection) and lowering of tax rates introduced in the fiscal year 1964-65 had led to decline in the extent of tax evasion which, in turn, was reflected in the observed rise in the Gini coefficient of concentration. Further, Balbir Singh used a numerical exercise to illustrate Srinivasan's basic result (which is also the basic result of Allingham-Sandmo model), that tax evasion is inversely correlated with the penalty rate as well as with the probability of detection. He made an interesting suggestion for tax policy that "either the penalty rates may be raised enormously and uniformly for all levels of income or they may be made progressive".[3] He

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1/ Serge-Christophe Kolm (1973).

2/ Balbir Singh (1973).

3/ Ibid, p. 260.

also questioned the recommendation of the Wanchoo Committee (1971)[1] that penalty rates should be related to the tax evaded rather than to the income concealed. With the help of a numerical example, he showed that the Committee's suggestion, if implemented, would require increase in expenditures needed for detection of tax evasion.[2]

Yitzhaki's short note on the Allingham-Sandmo model was an elaboration of one point. Allingham and Sandmo had premised the penalty rate on the basis of concealed income. On that premise, they had shown that a change in the tax rate would lead to two contradictory effects, namely, "income effect" and "substitution effect". Thus, the net result of a change in tax rate on reported income, in their model, was uncertain.[3] In his note, Yitzhaki showed that, if the penalty rate was imposed on the basis of tax evaded instead of on the basis of concealed income, there would be no "substitution effect". There would then be no contradictory effects arising from "income effect" and "substitution effect". The tax rate would then be inversely correlated with income evaded.[4]

The latest contribution on the subject is by Mork.[5] He made an interesting use of Norwegian data relating to the year 1970. His important finding which, of course, was not unexpected on _a priori_ grounds, was that the proportion of reported income to the actual income was inversely correlated to the level of actual income. This result is consistent with Allingham-Sandmo model as well as with Srinivasan model. In case of the former model, it involves an additional implication that the relative risk aversion is a decreasing function of income. Allingham and Sandmo had left this possibility open without committing themselves either way on this question on purely theoretical grounds. On the other hand, Srinivasan's model implied this empirical finding as a logical necessity on the basis of the assumptions made by him.[6] This is because he assumed progressive system of tax rates. An excellent demonstration of the implications of the two assumptions, regarding the system of tax rates and the nature of relationship between the relative risk aversion and the level of income, is provided by Mork in his article under reference here.[7]

1/ Indian Direct Taxes Enquiry Committee, Final Report (1971).

2/ Balbir Singh (1973), pp. 260-261.

3/ M. G. Allingham and A. Sandmo (1972), pp. 329-330.

4/ Shlomo Yitzhaki (1974), pp. 201-202.

5/ Knut Anton Mork (1975).

6/ This result is stated in his second corollary. See T. N. Srinivasan (1973), p. 341.

7/ Knut Anton Mork (1975), pp. 72-74.

B. Quantitative Studies

Quantitative estimation of tax evasion involves a comparison between the actual value of a tax base, e.g., income, wealth, expenditure, sales or production, and the value of the same tax base which is reported by the taxpayers on their tax returns. The difference between the "actual value" and the "reported value" is the amount concealed by the taxpayers from the taxation authorities. Tax evasion relates to this concealment. This can be explained with reference to personal income tax. The tax base in this case is taxable personal income. It is total personal income minus that part of personal income which is exempt under different provisions of income tax law in force in a country. A part of the personal income may be concealed by the taxpayers either by underreporting of their receipts or by overreporting of their expenses. Thus, the "taxed personal income" may be less than the "taxable personal income". The former is often called "assessed personal income", and the latter is often termed as "assessable personal income". The difference between the two is evasion of personal income tax.

The "assessed personal income" is easily obtained from the income tax statistics. No estimation is required in this case. Data of "assessed personal income" obtained from income tax statistics are "true" figures. No statistical errors of reporting or estimation are involved in the case of figures of "assessed personal income" obtained from income tax statistics.

The problem is with regard to the figures of "assessable personal income". There is no way to obtain "true" figures in this case. Only estimates can be made; and the estimates are subject to an appreciable margin of error. In the developing countries, in particular, the margin of error is likely to be very wide indeed. The extent of error in the estimates of tax evasion will be exactly equal to the extent of error in the estimates of "assessable personal income". So, the problem in estimating personal income tax evasion is only with regard to the estimation of "assessable personal income".

Three approaches are possible to the estimation of "assessable personal income" (or any other tax base like net wealth, expenditure, sales or production). One is the collection of primary data through a field survey. The second is the use of available secondary data by making suitable adjustments to approximate the tax base as nearly as possible. The third is the method of intensive field auditing of selected tax returns usually conducted by tax administration. All of these three methods have been used in the studies made so far, to a greater or smaller extent.

We shall make a brief reference to the field survey method used in the U.S.A. by Harold M. Groves and his associates. The primary focus of our attention will, however, be the second method of study involving the use of data on income, wealth, sales, production, etc., available from sources other than tax statistics. This is the method which has been most extensively used by economists in their studies of tax evasion and tax avoidance.

The third method of estimating and controlling tax evasion is internal auditing of tax returns used by the tax department of every country. It has

been developed to the greatest extent in the U.S.A. Several articles have been written by Marius Farioletti which explain the use of internal auditing.[1/] We shall not discuss this method in this paper because it requires working knowledge of techniques of accounting and auditing.

Very little use has been made of the field survey approach to the collection of data. In the U.S.A., Groves and his associates used the field survey approach with regard to certain components of personal income, namely, farm income, rental income from residential buildings, dividends and interest income. The study was confined to Wisconsin State. The only published work containing results of these field surveys is an article by Groves.[2/] Two unpublished doctoral dissertations, submitted to the University of Wisconsin in 1958, contained detailed findings. One of the dissertations was by Gardner;[3/] and the other was by Adler.[4/]

The steps involved in the field survey approach to the estimation of tax evasion are described in the above-mentioned article by Groves. The first step, of course, was the selection of a sample which was representative of the universe. The second step was to ascertain gross receipts and business expenses. For this purpose, "every means available" was used to ascertain gross receipts and business expenses to arrive at the figures of net income. Interviews with the "payers of income" were most important source of information on gross receipts; and business expenses were estimated by an intensive study of all sources of information including the knowledge of experts. The third step was to compare the estimates of net income with the net incomes reported on income tax returns. Finally, the nonreporting of income was, where possible, translated into non-compliance with tax obligations, that is loss of tax revenue due to non-compliance.

The estimates of tax compliance emerging from the Groves' study were 47 per cent for residential rental income, 60 to 75 per cent for farm income, 96 per cent for dividends, and 82 to 86 per cent for interest received in the case of mortgages and notes.[5/]

1/ Marius Farioletti (1965). He lists his previous articles in footnotes on p. 124. Also see the pamphlet on Audit Control Program for 1948 individual income tax returns, published by the Internal Revenue Service, U.S. Treasury Department, Washington, D.C., 1951.

2/ Harold M. Groves (1958).

3/ Wayland Gardner (1958)

4/ Norman Adler (1958).

5/ Using secondary data, Stocker and Ellickson estimated that tax compliance in the case of farm income was higher than that reported here by Groves. See Frederick D. Stocker and John C. Ellickson (1959). For an argument which tends to support Groves, see Wayland Gardner (1959). Neither of them offer any precise estimate of tax compliance in respect of farming income. Tax compliance is antonym of tax evasion. So, if tax compliance is 47 per cent, tax evasion is 53 per cent (i.e., 100-47=53).

The second method, which involves use of secondary data available from national accounts statistics, etc., has been utilized in several countries. In the U.S.A., first study of this type was made by Goldsmith in 1951.[1/] Four years later, it was followed by a study by Holland and Kahn.[2/]

In the U.S.A., different estimates of tax evasion suggest that the extent of outright evasion of personal income tax has been within tolerable limits. The study by Selma Goldsmith cited above had yielded an estimate of an overall gap of 14 per cent between estimated income and reported income for the years 1944 to 1946. The most recent estimate of such illegal underreporting of income relating to 1970 is "about 6.5 per cent". To this has to be added a "further, unknown amount of income (which) escaped taxation because of underreporting of capital gains and improper claim of personal exemptions and deductions not discovered by the Internal Revenue Service".[3/] Thus, according to the latest estimates, tax evasion may be of the order of 10 per cent in respect of personal income in the U.S.A. It is, however, reported to be of a much higher order in many other developed countries. For example, "it is estimated that one third of the French income tax base fails to be reported".[4/]

In the U.S.A., attention has been focused on tax avoidance rather than on tax evasion. This is because prevalence of tax evasion has been considered to be within tolerable limits. Tax avoidance has been the source of major concern to the general public as well as to the students of taxation. It is argued that the principal need for tax reform is to check tax avoidance. The theoretical basis for this argument is the Haig-Simons definition of income. Both Haig[5/] and Simons[6/] argued in favor of adoption of a comprehensive definition of income as a basis for personal income taxation. In Haig's words, income is "the increase or accretion in one's power to satisfy his wants in a given period in so far as that power consists of (a) money itself, or, (b) anything susceptible of valuation in terms of money".[7/] Simons equates personal income with the algebraic sum of consumption and change in net worth.[8/]

1/ Selma F. Goldsmith (1951).

2/ Daniel M. Holland and Harry C. Kahn (1955).

3/ Richard Goode (1976), p. 33.

4/ Serge-Christophe Kolm (1973), p. 270.

5/ R. M. Haig (1921).

6/ Henry C. Simons (1938).

7/ Quoted by Richard Goode (1976), p. 13.

8/ See ibid, p. 13.

There is general consensus among professional economists that Haig-Simons definition of income is an ideal basis for personal income taxation on grounds of equity.1/ As against this widely accepted theoretical ideal, the empirical fact is that income tax is actually imposed on only half the amount of total personal income. This wide gulf between actually taxed amount of personal income and the amount of total personal income reported in national accounts statistics is the result of exemptions, deductions, and special treatment of certain types of income, which are provided in tax laws. Reduction in the income tax base arising from such special provisions of tax laws is often termed as "tax avoidance". All such special provisions of tax laws are popularly regarded as "tax loopholes". The principal aim of tax reform in the U.S.A. is often stated to be the plugging of such "tax loopholes".2/

Unlike tax evasion, quantitative estimation of tax avoidance can be made with a fair degree of accuracy. All that is needed is a painstaking effort to measure loss of tax revenue resulting from different preferential tax treatment provisions of tax laws. Given the desire to do so, such information can be easily collected by tax administration in any country through properly designed tax returns. Economists can use such information in estimating quantitative magnitude of tax avoidance resulting from different "tax loopholes".

In the U.S.A., the magnitude of tax revenue lost due to tax avoidance has been measured with a high degree of accuracy. One of the first attempts at such quantitative estimation was made by Joseph A. Pechman in 1957. Pechman provided quantitative estimates of reductions in income tax base, and consequently in income tax revenue, resulting from each of the major "leakages" in his 1957 article on "Erosion of the Individual Income Tax".3/ Recently, Pechman and Okner updated the estimates and provided details of income tax erosion by income classes in their joint study for the U.S. Congress Committee on Ways and Means.4/ The most detailed discussion of the subject is found in Surrey's recent book.5/

1/ On the grounds of administrative convenience, some modifications of Haig-Simons definition of income are accepted. The most important modification is the treatment of capital gains on the basis of "realization" instead of "accrual".

2/ For example, Feldstein says, "The principal aim of tax reformers in the Haig-Simons tradition has been to eliminate the favorable tax treatment currently enjoyed by particular forms of income and consumption". Martin Feldstein (1976), p. 123.

3/ Joseph A. Pechman (1957).

4/ Joseph A. Pechman and Benjamin A. Okner (1972).

5/ Stanley S. Surrey (1973). It should be pointed out that Surrey stresses efficiency aspect of preferential tax provisions more than their equity aspect. He asserts that direct financial assistance would, in most cases, be more effective method of realizing the intended goals than favorable tax treatments which he terms as "tax expenditures".

It has been estimated that various preferential tax treatments result in a loss of more than $100 billion in tax revenues.1/ A different way of expressing the same fact is that taxable income is reduced to less than half of the total personal income; and the "effective rates" are much below the nominal rates of personal income tax embodied in the rate schedule provided in the income-tax statute of the U.S.A.2/

It has been argued that tax avoidance leads to interpersonal inequity in taxation. However, all preferential tax treatment provisions, which reduce tax revenues, do not result in interpersonal inequity. In fact, some of those provisions promote interpersonal equity.3/ An obvious example of such provisions is allowance of personal exemptions, or complete exemption, from individual income tax, of personal income below a specified limit. It is a matter of semantics whether such preferential tax treatment provisions can be termed as "tax avoidance".

There are many preferential tax treatment provisions which lead to reduction in tax progressivity. Opportunity of taking advantage of these preferential tax treatment provisions is not available in an equal (or equitable) measure to all taxpayers irrespective of the levels of their personal incomes and irrespective of the sources of their personal incomes. Such preferential tax treatment provisions differ from one country to another. There is one preferential tax treatment provision which is common to income tax laws of all countries, namely, the preferential tax treatment of capital gains. This provides an incentive to taxpayers to convert their ordinary incomes from capital, e.g., dividends, into capital gains. However, every taxpayer does not have the opportunity to derive equal (i.e., equitable) reduction in his tax liability by resorting to such a conversion. Empirical studies indicate that preferential tax treatment of capital gains reduces progressivity of personal income tax.4/

Considerable empirical work has been done in the U.S.A. to determine the quantitative magnitude of the impact of different preferential tax treatment provisions of the U.S. income tax law on the degree of progressivity of personal income taxation. Some of these provisions like "personal exemptions" benefit most income classes; some of them like "income splitting" benefit middle income classes; some others like "deductions" benefit all income

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1/ U.S. Congress, Committee on Ways and Means (1975).

2/ Richard Goode (1976), p. 6. Influence of various preferential tax provisions on "effective rates of the individual income tax" for different income classes is vividly shown by Richard Goode in appendix table A-11, p. 309.

3/ Here, it is assumed that an increase in tax progressivity promotes interpersonal equity of taxation.

4/ For example of such an empirical study relating to the U.S.A., see Kul B. Bhatia (1974).

classes; and some of them like "preference items" and "capital gains" benefit, almost entirely, the highest income classes.1/

Preferential tax treatment provisions are common to tax laws of all countries. But, apart from the U.S.A., there are few attempts to quantify the loss of tax revenue resulting from different preferential tax treatment provisions separately. Nor has any attempt been made to quantify benefits of such preferential tax treatment provisions accruing to different income classes. However, overall reduction in tax base due to such preferential tax treatment provisions in tax laws of different countries is likely to be even greater than that in the U.S.A. For example, relying on official estimates in Colombia and the U.S.A., Bird observed, "The importance of the numerous deductions, allowances, and exemptions permitted by Colombian law is indicated by the fact that taxable income is 43 per cent of reported gross income - compared, for example, with 58 per cent in the United States in 1964".2/

The reduction in tax revenue consequent upon the "erosion of the individual income tax base" resulting from the preferential tax treatment provisions in income tax laws of all the countries is a matter of fact. But it is not a fact in the same sense that all such preferential tax treatment provisions are "tax loopholes". At least the avowed purpose of all such deductions, exemptions, and favorable rates is either equity or advancement of economic policy goals. Such special provisions have been classified into two types by Surrey. One type consists of "structural provisions" which are essentially meant to insure equity consideration of meting out equal treatment for individual taxpayers in similar economic circumstances. The second type of special tax law provisions "comprises a system of tax expenditures under which governmental assistance programs are carried out through special tax provisions rather than through direct Government expenditures".3/ Thus, "tax expenditures" are, in practice, almost always "tax incentives".4/ The important point to note is that if preferential tax treatment provisions are either provisions included on grounds of equity or provisions inserted as

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1/ See Richard Goode (1976), table A-11, p. 309. Also see table A-13, p. 311. Also see Joseph A. Pechman and Benjamin A. Okner (1972). As already stated in the text, these studies provide quantitative estimates of effects of different preferential tax treatment provisions of the U.S. income tax law on tax liabilities of persons in different income classes.

2/ Richard M. Bird (1970), p. 73. Also see table 15 on p. 74.

3/ Stanley S. Surrey (1973), p. 6.

4/ Thus, in a paper presented at a symposium on "Tax Incentives", held in 1969, Surrey said, "It would seem clear that while the tax incentive category may be somewhat narrower than the tax expenditure category, the zone that would be excluded from the incentive classification is not large in substantive scope or revenue magnitude". Tax Institute of America (1971), p. 11.

"tax incentives", it is misleading to label them as "tax loopholes".[1/] Insofar as this is true, loss of tax revenue resulting from legitimate use of such special provisions of tax laws cannot properly be described as "tax avoidance". This leads us into the question of distinguishing between legitimate use and illegitimate use of preferential tax treatment provisions. How does one draw the distinction in practice? That is a very important question to which we have found no answer yet. There is a vast amount of literature on the question of effectiveness, or otherwise, of tax incentives.[2/] Even a cursory glance into this literature brings home the formidable nature of the problems involved in the measurement of the effects of tax incentives. The most outstanding example of tax incentives is tax incentives to encourage investment in plant and machinery in general, or in specified "high priority" industries, in particular. The extent to which the results of empirical studies of impact of tax incentives on investment behavior can diverge from one another is revealed by the four outstanding contributions included in a recent publication.[3/] An extreme view was expressed by Eisner in a recent paper in which he questioned any contribution of tax incentives to increase in investment in the U.S.A. in recent years. He expressed his opinion as follows: "But the notion that business income taxes somehow bear specifically on investment is not correct. ... The prime determinant of business investment is demand".[4/]

Estimates of personal income tax evasion and avoidance have been attempted for some other countries also. However, it has not always been possible to separate tax evasion from tax avoidance. Usually, the estimate is a mixture of tax evasion and tax avoidance because it is very difficult to separate one from the other due to paucity of relevant data.

India is one of the most notable examples for which several attempts have been made to estimate the magnitude of tax evasion in respect of personal income tax. It has been noted that tax evasion does not occur in respect of

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1/ One of the foremost critics of the view that the principal aim of tax reform is to eliminate (or minimize) the use of preferential tax treatment provisions of tax laws is Roger A. Freeman. He has expressed his criticism in several of his papers. The most comprehensive critique is provided in his monograph included in the American Enterprise Institute, Perspectives on Tax Reform (New York: Praeger Publishers), 1974.

2/ For example, see Tax Institute of America (1971); Richard M. Bird and Oliver Oldman, eds., (1975), Part Five on "Taxation and Incentives"; and W. S. Kee, Review of Tax Incentives in Selected Asian Countries (mimeo), Public and Private Finance Division, World Bank, 1976.

3/ Gary Fromm, ed., (1971). An excellent critical summary of the studies is provided by Arnold C. Harberger in his "Discussion", included in the volume. The latter has also been reprinted in Arnold C. Harberger (1974), Chapter 10.

4/ Robert Eisner (1973), p. 399.

wages and salaried incomes. The various estimates of tax evasion that have been attempted are, therefore, estimates of tax evasion in respect of non-salaried personal incomes. Firstly, an estimate of non-salaried personal incomes is made from the national accounts statistics. Secondly, the figures of non-salaried personal incomes actually assessed to personal income tax are obtained from the published personal income tax statistics. The difference between these figures is an estimate of the amount of non-salaried personal incomes evaded from personal income tax. But it includes an element of tax avoidance because the estimate of non-salaried personal incomes derived from the national accounts statistics is not exactly equal to taxable income under the existing income tax law. The difficulty arises from the fact that accurate figures of exemptions, deductions, etc., provided in the income-tax law are not usually available. Thus, in the following paragraphs, tax evasion should be taken to imply a mixture of tax evasion and tax avoidance.

Kaldor was the first economist who attempted a systematic estimation of tax evasion in respect of non-salaried personal incomes in India. His estimate was based on a comparison between the figures of non-salaried personal incomes assessed to personal income tax, obtained from the income tax statistics, and the estimated figures of non-salaried personal incomes, based on the national accounts statistics. The former figures represent taxed non-salaried personal incomes; and the latter estimated figures represent taxable non-salaried personal incomes. The excess of the latter over the former is regarded as the measure of the amount of evaded non-salaried personal incomes. But, as we have pointed out in the preceding paragraph, Kaldor's estimate of tax evasion also contains an element of tax avoidance. His estimate for the fiscal year 1953-54 placed the total of "assessable incomes in all sectors outside agriculture" at "almost exactly twice the assessed income".1/ This means that almost half the total estimated non-salary income escaped income tax. Depending on the average tax rate assumed, loss of revenue due to tax evasion would be of the order of Rs.2,000-3,000 million.2/ It may be noted that Kaldor's estimate is ten-times the figure of tax evasion estimated by the Central Board of Revenue of the Government of India for the same fiscal year, i.e., 1953-54. The latter estimate of loss of revenue due to tax evasion was of the order of Rs . 200-300 million.3/ This should provide a striking example of the wide margin of error involved in such estimation. Inclusion of tax avoidance in Kaldor's estimate explains to a great extent the wide difference between the two estimates.4/ Nevertheless, the wide margin of error

1/ Nicholas Kaldor (1956), p. 105, para. 186.

2/ Kaldor admitted in reply to a question from the Indian Direct Taxes Administration Enquiry Committee, 1958-59, that his estimate included loss of tax revenue through tax avoidance also. See the Committee's Report (1959), p. 148, para. 7.5.

3/ Quoted in ibid, p. 148, para. 7.5.

4/ See footnote 2 on this page.

is bound to persist in any estimation of the magnitude of tax avoidance or of tax evasion. This is illustrated by two other estimates of the extent of tax evasion by Eapen and by Sahota who arrived at figures of Rs. 380 million and Rs. 610 million respectively.1/

Ojha and Bhatt made an estimate of tax evasion as part of their study of income distribution in India. They adopted a systematic procedure for estimating total taxable personal income of high-income non-salary earners because, as they pointed out, tax evasion "takes place entirely with respect to the high-income non-salary earner group".2/ Their method of estimation is somewhat different from Kaldor's but the dissimilarity is not fundamental. Basically, both methods of estimation are crucially dependent on the use of the official national accounts statistics. Besides, the concept of tax evasion is similar in both studies in that it includes loss of revenue due to tax avoidance. It is interesting to observe that despite the basic similarities in approach, Ojha and Bhatt estimate that nearly two-thirds of personal income of high-income non-salary earner group escaped income tax in both the periods to which their estimates relate.3/ As against this, Kaldor's estimate of evasion for the fiscal year, 1953-54, was substantially lower at one-half of total taxable personal income. In view of this, it sounds paradoxical that Kaldor's estimate of tax evasion in terms of revenue lost for the fiscal year, 1953-54, was 80 per cent higher than the corresponding estimate of tax evasion of Ojha and Bhatt for the average of the two fiscal years, 1953-54 and 1954-55.4/ The paradox is explained by the differences in coverage of income and in the average tax rates applicable to evaded income implicitly assumed in the two studies.

The most recent estimate of tax evasion in India was attempted by the Indian Direct Taxes Enquiry Committee, appointed by the Government of India in 1970 with a specific term of reference "to examine and suggest legal and administrative measures for countering evasion and

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1/ Quoted by the Working Group on Central Direct Taxes Administration, appointed by the Administrative Reforms Commission, Government of India, in its Report (1969), p. 106, para. 6.2, and the last footnote on the same page 106. It is not clear from the reference as to which fiscal year do the two estimates relate.

2/ P. D. Ojha and V. V. Bhatt (1964), Section IV, pp. 236-238.

3/ First period relates to the two fiscal years 1953-54 and 1954-55; and the second period relates to the next two fiscal years, 1955-56 and 1956-57.

4/ Ojha and Bhatt estimated tax evasion for this period to be Rs. 1,390 million as against Kaldor's estimate of Rs. 2,000-3,000 million. The mid-point of the latter estimate is 80 per cent higher than the former estimate. Ojha and Bhatt estimated tax evasion for their second period covering the two fiscal years, 1955-56 and 1956-57, to be Rs. 1,600 million.

avoidance of direct taxes".1/ The Committee followed Kaldor's method in its estimation of tax evasion, which, in fact, includes tax avoidance as in the case of Kaldor's estimate cited above. Their finding was that nearly 30 per cent of the total taxable non-salary income of the fiscal year, 1961-62, escaped income tax.2/ This figure is much lower than the proportion of one-half which was estimated by Kaldor for the fiscal year, 1953-54, which, in turn, was much lower than the two-thirds figure estimated by Ojha and Bhatt for the period covering two fiscal years, 1953-54 and 1954-55, cited in the preceding paragraph. Following the same method, the Committee estimated that for the fiscal year, 1968-69, the personal income on which income tax was evaded was of the order of Rs. 14,000 million.3/ Assuming that the average income tax rate applicable to this evaded income was 33.3 per cent, the Committee calculated that the loss of tax revenue through tax evasion (and avoidance) was of the order of Rs. 4,700 million for the fiscal year 1968-69.4/ As against this estimate of tax evasion for the fiscal year 1968-69, which corresponds to the tax assessment year 1969-70, the total tax payable by individual taxpayers, i.e., "Individuals" plus "Hindu Undivided Families", on the personal incomes assessed during the tax assessment year 1969-70 amounted to Rs. 2,927 million, that is less than Rs. 3,000 million.5/ Thus, tax evasion was of the order of three-fifths of the tax payable.

We have shown that various studies of tax evasion and avoidance relating to India provide clear evidence of a disturbingly high degree of tax evasion and avoidance. Different estimates vary widely but it seems clear that loss of tax revenue due to such practices is alarmingly high. It is very likely that revenues of government from personal income tax could double if somehow tax evasion and avoidance could be eliminated. W. Arthur Lewis had indicated that the order of magnitude was the same for Nigeria. He had said, in November 1966, that "the direct taxes on individuals (in Nigeria) can be doubled by better administration, reducing evasions, even without increases in rates".6/ The impression one would gather - because precise estimates are not possible - from Orewa's scholarly study

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1/ Indian Direct Taxs Enquiry Committee (1971), p. 1.

2/ Ibid, p. 7, para. 2.16.

3/ Ibid, p. 8, para. 2.17, last line.

4/ Ibid, p. 8, para. 2.18.

5/ Indian Central Board of Direct Taxes, Directorate of Inspection (Research, Statistics and Publications), Government of India, All India Income-Tax Statistics, 1969-70 (New Delhi, 1973), p. ix, para. 16.

6/ Quoted by Milton C. Taylor (1967). Reprinted in Richard M. Bird and Oliver Oldman, eds., (1975), p. 528.

of taxation in the Western Region of Nigeria is that W. Arthur Lewis's observation was no exaggeration.[1/] A study relating to Ceylon, based on results of amnesty, voluntary disclosure schemes and intensive field auditing of selected tax returns conducted by tax department, indicated that the broad order of magnitude of loss of revenue due to tax evasion and avoidance was likely to be similar.[2/] An example from Latin America is Colombia. It is admittedly difficult to give any precise estimate of loss of revenue resulting from tax evasion and avoidance but the order of magnitude is likely to be even higher than that indicated for India.[3/] Results of one sample survey of professionals in Bogota were reported by Milton C. Taylor and others in their Report on Fiscal Survey of Colombia, published in 1965. The survey showed that at least 10 per cent of the taxpayers surveyed did not file their tax returns; and of those who filed their tax returns, doctors and lawyers understated their incomes by at least 50 per cent.[4/]

The conclusion that emerges from the studies cited in the preceding paragraphs is that tax evasion and tax avoidance of personal income taxation are widely prevalent. It appears likely that in the developing countries, in particular, the loss of tax revenue may be of the same order of magnitude as the amount of tax revenue collected by the government in any country.

Very little effort has been devoted to a study of tax avoidance and evasion of other direct taxes, e.g., net wealth tax, estate duty, gift tax, property taxation at local level of government, etc. Recently in the United Kingdom, an attempt was made by Whalley to estimate avoidance of estate duty through all gifts _inter vivos_ avoiding estate duty. He made use of the available stamp duty statistics which enabled him "to make a _minimum_ estimate of the value of gifts made in each year in Great Britain". In addition, he could "estimate the amount of gifts made in each year (whether or not included in the above figures, i.e., estimated gifts referred to in the preceding quotation) which subsequently became liable to estate duty because the donor did not survive through the qualifying period. This leads to a _maximum_ estimate of the proportion of gifts given _inter vivos_ in any year which eventually becomes subject to estate duty".[5/] By subtracting the latter estimate of gifts _inter vivos_ which were subjected to estate

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1/ G. H. Orewa (1962). Cited in ibid, p. 531.

2/ Manil Silva (1972).

3/ Richard M. Bird (1970), especially pp. 73-80. Also see the staff paper No. 3 by Melvin White and Andrew C. Quale, Jr., and staff paper No. 6 by Federico J. Herschel, included in the Colombian Commission's Report, edited by Richard A. Musgrave and Malcolm Gillis (1971), especially pp. 322-324 and 401-409.

4/ Milton C. Taylor and others (1965), pp. 92-93.

5/ J. Whalley (1974), p. 644.

duty from the former estimate of all gifts inter vivos made in each year, Whalley arrives at the minimum estimate of tax avoidance of estate duty through gifts inter vivos. His conclusion is that, based on the two sets of estimates given in his table I and table II, "a minimum of 7% of all wealth passing in any year avoids estate duty completely".1/ His estimates of tax avoidance of estate duty in Great Britain relate to the period of six years, 1960-61 to 1965-66.

Horsman attempted to carry forward the investigation of tax avoidance of estate duty in Great Britain.2/ He followed an elaborate procedure to estimate the actual value of gifts inter vivos made in each of the twelve calendar years, 1961 to 1972. The essence of this procedure is the use of "mortality multipliers" of the kind used in estimating the distribution of personal wealth in Great Britain.3/ He compared his estimates of the total values of gifts inter vivos to the figures of values of gifts subjected to estate duty for the fiscal years, 1962-63 to 1972-73, obtained from the Reports of Commissioners of Inland Revenue and Inland Revenue Statistics.4/ The conclusion that emerges from the study of tax avoidance of estate duty through gifts inter vivos in Great Britain is stated by the author in the following words: "In round terms, therefore, our estimates point to the conclusion that avoidance by gifts inter vivos amounted to something of the order of 10% of the net capital value of all property assessed for estate duty (in 1968)".5/ This "actual" estimate of avoidance of 10 per cent is not too widely different from the "minimum" estimate of 7 per cent of avoidance of estate duty through inter vivos gifts which had emerged from Whalley's study, based on stamp duty statistics, discussed above. The relative closeness of the two estimates inspires confidence in their relative accuracy. The conclusion is that tax avoidance of estate duty in Great Britain was of a relatively small order of magnitude which many people would consider to be within tolerable limits.

We have not come across any study of evasion of commodity taxes, i.e., sales taxation or excise taxation, in developing countries. However, two studies of sales taxation were made by John F. Due. One relating to Canada was made in 1953, and revised in 1964;6/ and the second relating to the U.S.A. was made in 1974.7/ Both studies suggest that the broad order of magnitude of loss of revenue from sales taxation due to tax evasion would be about the same as that in the case of personal income taxation in those countries.

1/ Ibid, p. 643.

2/ E. G. Horsman (1975).

3/ This procedure is explained in ibid, pp. 517-519.

4/ Ibid, table II, p. 522.

5/ Ibid, p. 521.

6/ John F. Due (1953; Revised ed., 1964).

7/ John F. Due (1974).

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